

## **REMARKS**

In response to the above-identified Office Action, Applicants have amended the application and seek reconsideration thereof in this response. No claims have been added. No claims have been cancelled. Applicants have amended claims 1, 8, 11, 14 and 17. Accordingly, claims 1-21 are pending.

### **Objections**

#### ***Objections to the Claims***

The Examiner objected to claims 11-13 as containing informalities. Applicants have corrected the informalities and respectfully request the withdrawal of the objection. Applicants further respectfully submit that no new issues are raised by the corrections.

### **Rejections**

#### ***Rejections under 35 U.S.C. § 112, second paragraph***

#### **Claims 14-16**

Claims 14-16 were rejected under 35 U.S.C. § 112, second paragraph. Applicants respectfully submit that claim 14, as amended, and dependent claims 15 and 16 satisfy the requirements of 35 U.S.C § 112, second paragraph and respectfully request the withdrawal of the rejection of the claims under § 112.

#### ***Rejections under 35 U.S.C. § 102(e)***

#### **Claims 1-3, 5-7, 14, 17 and 19-21**

Claims 1-3, 5-7, 14, 17 and 19-21 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Pat. App. Pub. No. US 2004/0168045 by Morris *et al* (Morris), having a publication date of August 26, 2004. Applicants respectfully submit that claims 1-3, 5-

7, 14, 17 and 19-21 are not anticipated by *Morris* because *Morris* fails to teach each and every limitation of these claims.

In regard to amended claim 1, *Morris* does not disclose “a structure for tracking only *non-retired* load instructions only if the load instruction utilizes speculative data” (emphasis added). Instead, *Morris* discloses a speculative-load-instruction manager (SLIM) 29 that accepts retired speculative load instructions (par. [0029]). Because the SLIM in *Morris* stores retired speculative load instructions instead of non-retired load instructions, *Morris* fails to teach each and every limitation of claim 1.

Amended claims 14 and 17 contain elements similar to the aforementioned elements of claim 1. Accordingly, Applicants respectfully submit that claims 1, 14 and 17 are not anticipated by *Morris* under 35 U.S.C. § 102(e) and respectfully request reconsideration and withdrawal of the rejection of the claims.

Claims 2-3, 5-7 and 19-21 depend from independent claims 1 and 17, respectively, and are patentable for at least the reasons discussed in support of their base claims. Applicants respectfully request that these rejections be withdrawn as well.

#### *Rejections under 35 U.S.C. § 102(a)*

#### **Claims 8 and 10**

Claims 8 and 10 were rejected under 35 U.S.C. § 102(a) as being anticipated by “Itanium 2 Processor Microarchitecture” by McNairy *et al* (*McNairy*).

Applicants have amended claim 8 to recite in part “a load queue coupled to the store queue to track only non-retired speculative load instructions.” Applicants have reviewed *McNairy* and are unable to find where the reference teaches or suggests the cited language. Instead, *McNairy* teaches an advanced-load address table (ALAT) for dynamic memory disambiguation (p. 51-52). Applicants have reviewed the reference and are unable to find where *McNairy* teaches or suggests the cited claim language. Accordingly, Applicants respectfully submit that claim 8 is not anticipated by *McNairy*

under 35 U.S.C. § 102(a) and respectfully request reconsideration and withdrawal of the rejection.

Claim 10 depends from independent claim 8 and is patentable for at least the reasons discussed in support of the base claim. Applicants respectfully request that this rejection be withdrawn as well.

***Rejections under 35 U.S.C. § 103(a)***

**Claims 9 and 11**

Claims 9, 11 and 13 were rejected under 35 U.S.C. § 103(a) as being obvious over *McNairy* (*supra*) in view of *Johnson*, “Superscalar Microprocessor Design.”

Claim 9 depends from claim 8. As discussed above, *McNairy* fails to teach every element of claim 8. Therefore, *McNairy* fails to teach every element of claim 9. Furthermore, *Johnson* fails to cure the deficiency of *McNairy*. Applicants have reviewed *Johnson* and have been unable to find where the reference teaches or suggests “a load queue coupled to the store queue to track only non-retired speculative load instructions.” Thus, *Johnson* fails to cure the deficiency of *McNairy*.

Therefore, *McNairy* in view of *Johnson* fails to teach or suggest the cited claim language and Applicants respectfully request reconsideration and withdrawal of the rejection of claim 9.

Claim 11 contains elements similar to the aforementioned elements in claim 8 and therefore, Applicants believe that claim 11 contains patentable subject matter for at least the same reasons. Therefore, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 11.

Claim 13 depends from independent claim 11 and is patentable for at least the reasons discussed in support of the base claim. Applicants respectfully request that this rejection be withdrawn as well.

### **Claim 12**

Claim 12 was rejected under 35 U.S.C. § 103(a) as being obvious over *McNairy* (*supra*) and *Johnson* (*supra*) in further view of Hennessy *et al.*, "Computer Architecture: A Quantitative Approach" (*Hennessy*).

Claim 12 depends from claim 11 and is patentably distinct from *McNairy* and *Johnson* because neither reference teaches "a load queue coupled to the store queue to track only non-retired speculative load instructions." (discussed in regard to claims 8 and 11, *supra*).

Furthermore, the Examiner has failed to explain and Applicants are unable to find where *Hennessy* teaches or suggests the cited claim language. Thus, *McNairy*, *Johnson* and *Hennessey* fail to teach the cited language. Therefore, Applicants respectfully request reconsideration and withdrawal of the rejection of the claim.

### **Claims 4 and 16**

Claims 4 and 16 were rejected under 35 U.S.C. § 103(a) as being obvious over *Morris* in view of U.S. Pat. No. 6,598,156 issued to *Arora*.

Claims 4 and 16 depend from independent claims 1 and 14, respectively, and are patentably distinct from *Morris* for at least the reasons discussed in support of their base claims. Furthermore, the Examiner has failed to explain and Applicants are unable to find where *Arora* cures the aforementioned deficiency of *Morris*. Therefore, Applicants respectfully request reconsideration and withdrawal of the rejection of the claims.

### **Claims 15 and 18**

Claims 15 and 18 were rejected under 35 U.S.C. § 103(a) as being obvious over *Morris* in view of *Johnson*.

At least for the aforementioned reasons, *Morris* fails to teach the amended language of claims 14 and 17. Claims 15 and 18 depend from base claims 14 and 17 and

are patentable at least for the reasons discussed in support of their base claims. Furthermore, the Examiner has not explained and Applicants are unable to find where *Johnson* cures the deficiency of *Morris*. Therefore, *Morris* in view of *Johnson* fails to teach or suggest the cited claim language. Therefore, Applicants respectfully request reconsideration and withdrawal of the rejection of the claims.

## SUMMARY

Claims 1-21 are currently pending. In view of the foregoing amendments and remarks, Applicants respectfully submit that the pending claims are in condition for allowance. Applicants respectfully request reconsideration of the application and allowance of the pending claims. If the Examiner determines the prompt allowance of these claims could be facilitated by a telephone conference, the Examiner is invited to contact the undersigned at (310) 207-3800. Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due. Furthermore, if an extension is required, then Applicants hereby request such extension.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

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Thomas M. Coester, Reg. No. 39,637  
Attorney for Applicants

12400 Wilshire Blvd.  
Seventh Floor  
Los Angeles, California 90025  
(310) 207-3800

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Susan M. Barrette

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